



PATENT
ATTORNEY DOCKET NO: 04005/013003

COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled Transgenic Animals That Produce Human Hemoglobin, the specification of which

- ☐ is attached hereto.
☒ was filed on October 30, 1997, as Application Serial No. 08/961,443.
☐ was described and claimed in PCT International Application No. _____
filed on _____ and as amended under PCT Article 19 on _____.

state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information I know to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

| Country | Serial Number | Filing Date | Priority Claimed? |
|---------|---------------|-------------|-------------------|
| | | | Yes/No |
| | | | Yes/No |
| | | | Yes/No |

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose all information I know to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56(a) which became available between the filing date of the prior application and the national or PCT international filing date of this application:

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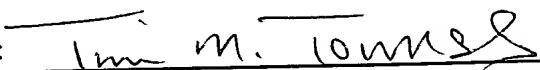
| Serial Number | Filing Date | Status |
|---------------|--------------------|--------|
| 08/934,385 | September 19, 1997 | |
| 08/888,433 | July 7, 1997 | |
| 08/611,542 | March 6, 1996 | |

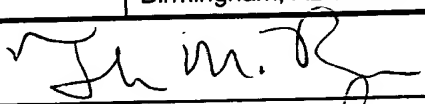
I hereby appoint the following attorneys and/or agents to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: Paul T. Clark, Reg. No. 30,162, Karen L. Elbing, Reg. No. 35,238, Kristina Bieker-Brady, Reg. No. 39,109, and Evelyn D. Shen, Reg. No. 39,834.

Address all telephone calls to: Karen L. Elbing at 617/428-0200.

Address all correspondence to: Karen L. Elbing at Clark & Elbing LLP, 176 Federal Street, Boston, MA 02110.

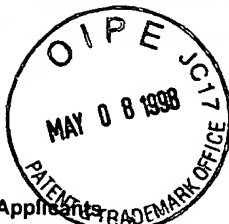
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

| Full Name (First, Middle, Last) | Residence Address (City, State, Country) | Post Office Address (Street, City, State, Country) | Citizenship |
|--|--|---|---------------|
| Tim M. Townes | 4033 N. Cahaba Drive Birmingham, AL 35243 | | USA |
| Signature:  | | | Date: 1-14-98 |

| Full Name (First, Middle, Last) | Residence Address (City, State, Country) | Post Office Address (Street, City, State, Country) | Citizenship |
|--|--|---|---------------|
| Thomas Ryan | 1000 18 th Street S. Apartment 6 Birmingham, AL 35205 | | USA |
| Signature:  | | | Date: 1-14-98 |

COMBINED DECLARATION AND POWER OF ATTORNEY

| Full Name (First, Middle, Last) | Residence Address (City, State, Country) | Post Office Address (Street, City, State, Country) | Citizenship |
|------------------------------------|---|---|----------------------|
| Dominic Ciavatta | 2030 11 th Avenue S. Apartment #5 G Birmingham, AL 35202 | | USA |
| Signature: <i>Dominic Ciavatta</i> | | | Date: <i>1/14/98</i> |



ATTORNEY DOCKET NO. 04005/013003

Applicant: Townes et al.
Serial or Patent No.: 08/961,443
Filed or Issued: October 30, 1997
Title: Transgenic Animals That Produce Human Hemoglobin

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9(f) and 1.27(d)) - NONPROFIT ORGANIZATION**

I hereby declare that I am an official empowered to act on behalf of the nonprofit organization identified below:

Name of Organization: The UAB Research Foundation
Address of Organization: 1825 University Boulevard,
Mortimer Jordan Hall # 113
University of Alabama at Birmingham
Birmingham, AL 35294

Type of Organization:

- ☐ University or Other Institution of Higher Education
☒ Tax Exempt under Internal Revenue Service Code (26 USC 501(a) and 501(c)(3))
☐ Nonprofit Scientific or Educational under Statute of State of the United States of America
Name of State:
Citation of Statute:
☐ Would Qualify as Tax Exempt under Internal Revenue Service Code (26 USC 501(a) and 501(c)(3)) If Located in the United States of America
☐ Would Qualify as Nonprofit Scientific or Educational under Statute of State of the United States of America If Located in the United States of America
Name of State:
Citation of Statute:

I hereby declare that the nonprofit organization identified above qualifies as a nonprofit organization as defined in 37 CFR 1.9(e) for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code with regard to the invention entitled "Transgenic Animals That Produce Human Hemoglobin" by inventors Tim M. Townes, Thomas Ryan, and Dominic Ciavatta described in

- ☐ the specification filed herewith.
☒ application serial no. 08/961,443, filed October 30, 1997.
☐ patent no. [**PATENT NUMBER**], issued [**ISSUE DATE**].

I hereby declare that rights under contract or law have been conveyed to and remain with the nonprofit organization with regard to the above identified invention.

If the rights held by the nonprofit organization are not exclusive, each individual, concern or organization having rights to the invention is listed below* and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 CFR 1.9(c) or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

Full Name:

Address:

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Name: Peter V. O'Neil, Ph.D.

Title: Interim Provost, Vice President of UAB Research Foundation

Address: The UAB Research Foundation, 701 South 20th St., Suite 1064 Administration B, Birmingham, AL 35294

Signature:  Date: 4/28